Preface

> *Being aware of how we interact and the types of relationships and communities we build are critical in order for the mathematical sciences to flourish.* —American Mathematical Society[1]

The past year has renewed a large-scale, long overdue conversation in the American mathematical community to reimagine strategies for teaching and learning, to reconsider the role of mathematics in society, and to reckon with its complicity in racial injustice. In this volume, we focus on what we can do as members of our mathematics community, assessing and reassessing some of our often unstated professional norms. Norms are local: they are how individuals interact with each other and how individuals act in an institution. They control everything from how one engages with seminar speakers to how students, postdocs, and junior faculty are mentored to who actually does what work. What can we as mathematicians and educators do in the classroom? In our departments? In our institutions? In our field?

Before it becomes possible to imagine professional norms that make mathematics more just and inclusive, we must recognize the structural forces that have contributed to the current status quo. The faculty and administrators who have set the tone in most departments have succeeded in this system, knowing how to play the game and intuitively understanding the rules. The sieves that permit only the lucky few to advance to each subsequent career stage contribute to a narrower scope of experience and understanding. The factors that have helped some succeed should be scrutinized in tandem with the obstacles that have hindered the success of others.

In this collection, we have centered the personal voices of mathematicians whose lived experiences warn against an attenuated view of mathematical talent and injurious "mentoring" practices (see especially Chapters 1 and 2 in this volume). The authors point out the paradox of promotion systems that award individual achievement in a world where research progress is most commonly made by collective effort. They also share stories about painful experiences we often do not hear.

The volume continues with concrete suggestions about how to start to do the work to build communities in which all mathematicians can flourish. The contributing authors explore what we can do in the classroom and in our public lectures, centering the humanity of our students and audience (see especially Chapters 3 and 4). They describe what we can do in our institutions, like showing solidarity with contingent teaching faculty, supporting organized labor, and confronting sexual harassment (see especially Chapters 5, 8, and 9). They discuss what we can do nationally and internationally, acknowledging structural changes in academia and the impact of our approaches to the environment. They also encourage us to draw on the skills developed through

[1] `http://www.ams.org/programs/diversity/diversity`

mathematics in order to engage with work in other disciplines, using mathematics as a language to help further understanding (see Chapters 6 and 7).

In this kind of work, we see a local-to-global phenomenon quite clearly: our work at the local level building community and creating brave and welcoming spaces glues to the work of our colleagues at other institutions, creating a systemic awareness and change across the mathematical landscape. Building open and supportive communities is hard and requires continuous effort, and facing this and figuring out how to even start can be daunting. Our goal is to provide a place where mathematicians can begin educating themselves and start taking steps to build a better, more inclusive community.

As mathematicians, we like to see ourselves as participating in a very long conversation, engaging directly with the mathematical work and mathematicians from years, decades, and centuries before. This volume is timely, reflecting the current state of discourse, but the issues discussed are timeless.

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